

## **Market consultation 45842 with subject “Supply of Ultrasonic Inspection Scanner”**

Kozloduy NPP EAD informs all interested parties that in connection with the preparation for awarding a public procurement and determining the estimated value pursuant to Article 44 of the PPA is collecting indicative proposals for **“Supply of Ultrasonic Inspection Scanner”**.

The proposal shall include:

- A detailed description of the proposed equipment in accordance with the enclosed Technical requirements;
- Value VAT excl., currency;
- Warranty period;
- Accompanying documentation upon delivery;
- Exact address and contact person, telephone number, fax number, e-mail, web site.

Inquiries regarding the market consultation may be made by 04 December 2020 at the following e-mail address: [commercial@npp.bg](mailto:commercial@npp.bg), as the clarifications will be published in the Buyer profile.

Deadline for the receipt of the indicative proposals: 11 December 2020 on e-mail: [commercial@npp.bg](mailto:commercial@npp.bg)

The indicative proposals and any other information exchanged during the market consultations held shall be published in the Buyer profile.

By submitting an indicative proposal, each participant in the market consultations agrees that the proposal and any other information provided as a result of the market consultations shall be made available to the public in the Buyer profile.

The Contracting Authority retains the rights to use indicative proposals received in the course of market consultations for awarding public procurements up to the value thresholds of Article 20, paragraph 4 of the PPA.

Further information can be obtained from Manuela Krasimirova - Marketing Expert, tel. +359 973 7 3361, e-mail: [MKsimeonova@npp.bg](mailto:MKsimeonova@npp.bg)

Enclosures:

1. Terms of reference;
2. Indicative proposal template.

# TECHNICAL REQUIREMENTS

for delivery of scanner for automated ultrasonic control, scanner control and portable workstation with installed control software

## 1. Description of delivery

### 1.1. Scope of delivery

1.1.1. Scanner with two movement modules X and Y. X-module ensures the movement of the scanner along the X-axis. Y-module provides the movement (scanning) of the probes for ultrasonic control;

1.1.2. Scanner control;

1.1.3. Portable workstation with installed motion control software;

1.1.4. Spare parts, specialized mechanisms and tools to providing the control.

### 2. Basic characteristics.

#### 2.1. Scanning device (scanner).

2.1.1. The scanner should be configured to attach to pipelines with a minimum pipe diameter (external forming) of 200mm to a flat surface.

2.1.2. To be of modular type with the possibility of movement in two coordinates (X and Y-axis).

2.1.3. The movement modules should be of the same type.

2.1.4. Move the scanner along the X-axis in both the horizontal and vertical planes.

2.1.5. The speed of movement on the X-axis should be in the range  $0 \div 50\text{mm/s}$ .

2.1.6. The speed of movement along the Y-axis should be in the range  $0 \div 100\text{mm/s}$ .

2.1.7. The scanner should be attached to the pipeline by means of 4 (four) magnetic wheels.

2.1.8. The scanner should be equipped with an auxiliary mechanism for detaching the magnetic wheels from the work surface.

2.1.9. The Y-module can be delivered in two variants. Both options should be equipped with everything necessary.

2.1.9.1. first variant provides movement of 240mm between the sensors;

2.1.9.2. second variant provides movement of 130mm between the sensors.

2.1.10. The Y-module must be able to scan in a plane, other than that defined by the magnetic wheels (offset from  $0^\circ$  to  $90^\circ$ ).

2.1.11. Metal guides must be mounted on the scanner for mounting on the guide chain.

### 2.2. Scanner Control.

2.2.1. Provides motion control of X module and Y module

2.2.2. Provides transfer of current coordinates to a multi-channel flaw detector model DYNARAY Lite.

2.2.3. Output sockets for current coordinates on the X and Y-axis (trigger signals from a square encoder).

2.2.3.1. To ensure the transmission of coordinates to the multi-channel flaw detector model DYNARAY at a distance of 2m and at a distance of 70m.

2.2.4. Output jacks for LAN communication

2.2.4.1. Main socket type RJ-45

2.2.4.2. The socket must be protected and must not allow easy disconnection or interruption of communication in operating conditions.

2.2.5. Wiring:

2.2.5.1. Cable between the controller and the scanner with a length of 15 meters;

2.2.5.2. Connection cable between the controller and the DYNARAY ultrasonic flaw detector according to item 2.2.3.1;

2.2.5.3. Cabling under item 2.2.4. for distances 2m and for distance 70m.

2.3. Portable workstation with installed motion control software.

2.3.1. Minimum configuration requirements:

2.3.1.1. Intel @ Core™ i5 processor class or higher;

2.3.1.2. RAM - DDR4 6 GB or larger;

2.3.1.3. ROM - 256 SSD or larger;

2.3.1.4. 15.6 "display (39.62 cm) Full HD (1920x1080);

2.3.1.5. Licensed Windows 10 operating system.

2.3.2. The motion control software can be installed on the Windows 10 operating system.

2.3.3. Provides positioning of the probes and scanning in a pre-set and/or newly set configuration (scan file). Scanning step deviation should be <0,1mm.

2.3.4. The displacement step when scanning should be determined by the operator with the possibility of correction by 0,1 mm.

2.3.5. Scan and travel speeds to be determined by the operator.

2.4. Spare parts, specialized elements and tools for delivery.

2.4.1. Attach a set of rails (of different lengths) to the Y-module, to which the probe holders are attached. Attaching the rail to the Y-module and the holders to the rail to allow linear displacement.

2.4.2. Holders for probes, guaranteeing contact with variable geometry of the controlled surface - 6 pcs. The holders should provide movement of the probes about 45 mm.

2.4.3. The holders shall have a device for attaching probes in order to ensure acoustic contact with dimensions:

• for probes with dimensions: 21.5mm x 37mm - 4 pieces;

- for probes with dimensions: 40mm x 40mm - 4 pieces;
- for probes with dimensions: 30mm x 30mm - 4 pieces.

2.4.4. The scanner should be delivered with a repair kit, which should include bolts, nuts, seals, an electric motor with a reducer, a set of spare scanner cables and a cable for connection between the controller and the scanner. Tools for installation, repair and maintenance to ensure reliable operation during inspection.

2.4.5. 5 m long guide metal chain.

2.4.6. Devices for fastening and tightening to the pipelines - 5 pcs. Spare bolts and chain length adjuster.